## **ABSTRACT**

A monitoring system is described that is comprised of a processing system and a database system. The database system is configured to store identities for a plurality of channels in the communication network. The processing system identifies an error on a first channel of the plurality of channels. The processing system identifies a second channel of the plurality of channels that is adjacent to the first channel based on the database system and determines if an error occurs on the second channel. The processing system identifies a third channel of the plurality of channels based on database system and determines if an error occurs on the third channel. The processing system identifies polarization-mode dispersion based on determining the error occurs on the second channel and determining the error does not occur on the third channel.

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